

Message

From: Ackerman, Terry L. [/O=NPPD/OU=CGO/CN=RECIPIENTS/CN=TLACKER]
Sent: 1/21/2012 7:21:11 PM
To: Shafer, Jeffrey T. [jtshafe@nppd.com]; Harris, Douglas D. [ddharri@nppd.com]
CC: Barels, Brian L. [blbarels@nppd.com]; Hongsermeier, Randy L. [rlhongs@nppd.com]
Subject: RE: GGS wells and the Twin Platte NRD

We have fairly good data on the well field wells, and you may already have that information. There are some gaps in the data when instrumentation is out of service, but I think we could put together a pretty good pumping history for these wells.

We have much less information available on the three potable wells and the one fire pump well on site.

I would need to check with our Operations group on the diesel engine driven fire pump; they may log start and stop times (when the well is run for testing) but I am not sure. Even if they did, flow when the pump is in service would be a complete guess since it would depend on fire system demand, other fire pumps in service, information on times when the diesel fire pump auto started, etc.

I think it would also be difficult to put together a reasonably accurate pumping history for the three potable wells (at least looking back in time). Of the three potable wells, Well #1 runs very infrequently and is the smallest of the three wells. Again, I would need to check with Operations to see if they log start/stop times for this well. Wells #2 and #3 are the wells that normally supply the potable water (and other) systems. The pump selected as the lead pump would normally supply the system demand, and the lag pump would only start if the lead pump could not keep up. One problem with attempting to determine pumping on Wells #2 and #3 is the fact that they are driven by variable frequency drives (VFDs) that ramp up and down depending on system demand so run time alone is not a good indicator of gallons pumped. I would need to do some checking to find out what type of data is historized for each of these wells (start/stop times, VFD parameters, etc.). We have a handful of flow elements in the potable water system, but I do not know if they are historized. Even if they are, they do not account for system flow demands that branch off upstream of the flow elements.

I guess the short story is that getting an accurate pumping history for the potable wells and fire pump well would be difficult at best. Please give me a call if you would like to discuss further.

Doug or Randy – Please correct me if any of my statements about trying to develop a pumping history for the potable wells is inaccurate.

Terry

From: Shafer, Jeffrey T.
Sent: Wednesday, January 18, 2012 3:09 PM
To: Ackerman, Terry L.; Harris, Douglas D.
Cc: Barels, Brian L.
Subject: GGS wells and the Twin Platte NRD

Terry and Doug,

About a year ago we had some conversations about the Twin Platte NRD's rules concerning industrial wells and Brian and I were attempting to influence the NRD to not require flow meters on the plant wells. We are still pursuing this option, but I would also like to know if any data related to well pumping is already available. For instance, do you have records of when the wells were turned on and off or anything else that could be used to estimate a total flow pumped.

Thanks,

Jeff